

**Amendments to the Claims:**

This listing of the claims will replace all prior versions and listings of claims in the application.

**Marked-up Listing of Claims:**

1. (currently amended) A radiopharmaceutical pig for housing a radiopharmaceutical, the pig comprising:

a base comprising a base shielding element made of a radiation-blocking material comprising at least one of lead and tungsten, a base shell that completely encloses the base shielding element and that is made of a polymer material, and a first hollow center section defined in the base; and

a cap removably attached to the base, wherein the cap comprises a cap shielding element made of a radiation-blocking material comprising at least one of lead and tungsten, a cap shell that completely encloses the cap shielding element and that is made of a polymer material, and a second hollow center section defined in the cap.

2. (currently amended) The pharmaceutical-pig of Claim 1, wherein the cap is removably attached to the base through complimentary threads located on the cap and the base.

3. (currently amended) The pharmaceutical-pig of Claim 2, wherein the threads located on the cap and the base do not allow the cap to rotate more than three hundred and sixty degrees (360°) in relation to the base.

4. (cancelled).

5. (currently amended) The pharmaceutical-pig of Claim 2, wherein the threads located on the cap and the base do not allow the cap to rotate more than ninety degrees (90°) in relation to the base.

6. (currently amended) The pharmaceutical-pig of Claim 1, wherein the cap shell and the base shell are made of plastic material.

7. (currently amended) The pharmaceutical-pig of Claim 6, wherein the plastic material comprises polycarbonate resin.

8-9. (cancelled).

10. (currently amended) The pharmaceutical-pig of Claim 1, wherein a bottom portion of the base is substantially bell-shaped.

11. (currently amended) The pharmaceutical-pig of Claim 1, wherein the base includes a top portion that is substantially cylindrical and a bottom portion that is substantially bell-shaped, wherein the bottom portion includes a plurality of flattened portions.

12. (cancelled).

13. (currently amended) The pharmaceutical-pig of Claim 1, wherein the base includes a top portion having a first diameter, a middle portion having a second diameter and a bottom portion having a third diameter, wherein the second diameter is less than the first diameter and the second diameter is less than the third diameter.

14. (currently amended) The pharmaceutical-pig of Claim 1, wherein the cap includes a top portion having a fourth diameter and a bottom portion having a fifth diameter, wherein the fourth diameter is less than the fifth diameter.

15. (currently amended) The pharmaceutical-pig of Claim 1, wherein the base includes a top portion, a middle portion and a bottom portion, and the cap includes a top portion and a bottom portion, wherein the top portion of the base of the pharmaceutical-pig includes a plurality of flattened portions and the bottom portion of the cap of the pharmaceutical-pig includes a plurality of flattened portions.

16. (currently amended) The pharmaceutical-pig of Claim 15, wherein the plurality of flattened portions on the bottom portion of the cap are substantially aligned in a corresponding relationship with the plurality of flattened portions located on the top portion of the base.

17. (currently amended) The pharmaceutical-pig of Claim 1, further comprising a fluid-tight seal located between the cap and the base.

18. (currently amended) The pharmaceutical-pig of Claim 2, further comprising at least one locking detent associated with the threads.

19. (currently amended) The pharmaceutical-pig of Claim 1, wherein the base shielding element includes a protrusion located near an open end of the base shielding element and adjacent to a shoulder portion of the base shielding element.

20-21. (cancelled).

22. (currently amended) A radiopharmaceutical assembly, comprising:  
a syringe having a needle, a barrel, a finger grip, and a plunger; and  
a radiopharmaceutical pig comprising:

a base having a polymer shell molded about an entirety of that completely encloses a base shielding element of the base, the base having a first hollow center section defined therein, wherein the first hollow center section is designed to accommodate the needle and at least a portion of the barrel of the syringe; and

a cap that is removably attached to the base, the cap having a polymer shell that completely encloses molded about an entirety of a cap shielding element of the cap, wherein the cap has a second hollow center section defined therein that is designed to accommodate at least a portion of the plunger of the syringe.

23. (currently amended) The radiopharmaceutical-assembly of claim 22, wherein the polymer shells of the cap and the base include polycarbonate resin, and wherein the base shielding element and the cap shielding element include lead.

24. (currently amended) The ~~radiopharmaceutical~~-assembly of claim 22, wherein the polymer shell of the cap has a flattened portion that is substantially aligned with a flattened portion of the polymer shell of the base.

25. (currently amended) The ~~radiopharmaceutical~~-assembly of claim 22, wherein the cap and the base include threads to enable the cap and the base to be releasably attached to one another, and wherein at least one detent is associated with the threads.

26. (currently amended) The ~~radiopharmaceutical~~-assembly of claim 22, wherein the syringe is disposed in the ~~pharmaceutical~~-pig such that the finger grip of the syringe contacts a shoulder of the base near an open end of the base.

27-38. (cancelled).

39. (New) The pig of claim 1, wherein the base shielding element is made of lead.

40. (New) The pig of claim 1, wherein the base shielding element is made of tungsten.

41. (New) The pig of claim 1, wherein the base shielding element comprises a metallic-filled polymer.

42. (New) The pig of claim 1, wherein the base shielding element is made of a metallic-filled polymer.

43. (New) The pig of claim 1, wherein the cap shielding element is made of lead.

44. (New) The pig of claim 1, wherein the cap shielding element is made of tungsten.

45. (New) The pig of claim 1, wherein the cap shielding element comprises a metallic-filled polymer.

46. (New) The pig of claim 1, wherein the cap shielding element is made of a metallic-filled polymer.

47. (New) The pig of claim 1, wherein at least one of the base and the cap is elongate.

48. (New) The pig of claim 1, further comprising a radiopharmaceutical disposed in at least one of the first and second hollow center sections of the pig.

49. (New) The pig of claim 1, further comprising a syringe, wherein at least a portion of a barrel of the syringe is disposed in the first hollow center section of the base of the pig.

50. (New) The assembly of claim 22, wherein the base shielding element of the pig comprises lead.

51. (New) The assembly of claim 22, wherein the base shielding element of the pig comprises tungsten.

52. (New) The assembly of claim 22, wherein the base shielding element of the pig comprises a metallic-filled polymer.

53. (New) The assembly of claim 22, wherein the base shielding element of the pig is made of lead.

54. (New) The assembly of claim 22, wherein the base shielding element of the pig is made of tungsten.

55. (New) The assembly of claim 22, wherein the base shielding element of the pig is made of a metallic-filled polymer.

56. (New) The assembly of claim 22, wherein the cap shielding element of the pig comprises lead.

57. (New) The assembly of claim 22, wherein the cap shielding element of the pig comprises tungsten.

58. (New) The assembly of claim 22, wherein the cap shielding element of the pig comprises a metallic-filled polymer.

59. (New) The assembly of claim 22, wherein the cap shielding element of the pig is made of lead.

60. (New) The assembly of claim 22, wherein the cap shielding element of the pig is made of tungsten.

61. (New) The assembly of claim 22, wherein the cap shielding element of the pig is made of a metallic-filled polymer.

62. (New) The assembly of claim 22, wherein at least one of the base and the cap of the pig is elongate.

63. (New) The assembly of claim 22, further comprising a radiopharmaceutical disposed in the barrel of the syringe.

64. (New) The assembly of claim 22, the polymer shell of the base is molded about an entirety of the base shielding element, and the polymer shell of the cap is molded about an entirety of the cap shielding element.